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10/599,399	03/16/2007	Sarah Michelle Lipman	POW2B-83992	8260

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FULWIDER PATTON LLP  
HOWARD HUGHES CENTER  
6060 CENTER DRIVE, TENTH FLOOR  
LOS ANGELES, CA 90045

EXAMINER
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XAVIER, ANTONIO J

ART UNIT	PAPER NUMBER
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2629

MAIL DATE	DELIVERY MODE
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07/13/2010

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/599,399	<b>Applicant(s)</b> LIPMAN ET AL.	
	<b>Examiner</b> ANTONIO XAVIER	<b>Art Unit</b> 2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 15 June 2010.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-58 is/are pending in the application.
- 4a) Of the above claim(s) See Continuation Sheet is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-2, 7-10, 15, 18, 22, 24-31, 36-39, 44, 47, 51 and 53-58 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 September 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                     |                                                                   |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)         | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____                                                         | 6) <input type="checkbox"/> Other: _____                          |

Continuation of Disposition of Claims: Claims withdrawn from consideration are 3-6,11-14,16,17,19-21,23,32-35,40-43,45,46,48-50 and 52.

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the panel without an optical guide and scattering particles including at least one detector arranged along said at least one edge and said panel being operative to transmit electromagnetic radiation to said at least one edge (Claims 1 and 30) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner,

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the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-2, 7-9, 15, 18, 22, 24-27, 29-31, 36-38, 44, 47, 51, 53-56 and 58 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the **written description requirement**. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claims 1 and 30 recite a panel without an optical guide and scattering particles including at least one detector arranged along said at least one edge and said panel being operative to transmit electromagnetic radiation to said at least one edge, (emphasis added). However, the specification contains no teachings or suggestions directed towards the claimed panel sufficient to reasonably convey to one of ordinary skill in the art that the inventor had possession of the claimed invention at the time the application as filed. Specifically, how does a panel without an optical guide or scattering

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particles direct a beam of electromagnetic radiation to a detector arranged along one edge of the panel?

Examiner notes paragraph [0050] of the specification as filed teaches the electromagnetic radiation is "scattered by the screen." Paragraph [0052] teaches the "screen preferably is made of a relatively transparent material with small but significant scattering properties" (emphasis added). How do the aforementioned screens perform light scatter? Does Applicant consider the subject matter to be well known in the art such that further details were omitted?

Examiner notes an alternative embodiment is also disclosed. Paragraph [0096] teaches "a transparent non-scattering element in contact with a Lambertian surface may be employed." However, the claim does not appear to read on this subject matter because "said panel being operative to transmit electromagnetic radiation from said at least one beam impinging thereon to said at least one edge thereof" claims the panel itself is redirecting the beam to the detector.

Claims 2, 7-9, 15, 18, 22, 24-27, 29, 31, 36-38, 44, 47, 51, 53-56 and 58 are dependent on Claims 1 and 30 are rejected for substantially the same reasons.

For the remainder of this Office Action Examiner is interpreting the claim to read on an optical guide in conjunction with a scattering element other than particles.

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4. Claims 1-2, 7-9, 15, 18, 22, 24-27, 29-31, 36-38, 44, 47, 51, 53-56 and 58 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the **enablement requirement**. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

With respect to Claims 1 and 30, Applicant's most recent amendment and arguments, dated June 15, 2010 (hereinafter referred to as "Remarks"), attempt to distinguish the structure of the claimed invention from the structure of a previously cited reference. Specifically, on p. 11 of the Remarks, Applicant argues "[t]he present invention panel does not require specialized optical guide channels and/or scattering particles. To better define the present invention over the art, applicants have amended claim 1...**a transparent non-scattering element** may be used in an alternative embodiment" (emphasis added). Examiner notes the manner in which the panel is able to transmit the input beam towards **detectors arranged along the edges of said panel** without optical guides and scattering particles, is not enabled by the specification as filed or reflected in the newly amended claims. Specifically, how does a panel without an optical guide or scattering particles direct a beam of electromagnetic radiation to a detector arranged along one edge of the panel?

Examiner notes paragraph [0050] of the specification as filed teaches the electromagnetic radiation is "scattered by the screen." Paragraph [0052] teaches the "screen preferably is made of a relatively transparent material with small but **significant scattering properties**" (emphasis added). How do the aforementioned screens perform

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light scatter? Does Applicant consider the subject matter to be well known in the art such that further details were omitted?

Examiner notes an alternative embodiment is also disclosed. Paragraph [0096] teaches "a transparent non-scattering element in contact with a Lambertian surface may be employed." However, the claim does not appear to read on this subject matter because "said panel being operative to transmit electromagnetic radiation from said at least one beam impinging thereon to said at least one edge thereof" claims the panel itself is redirecting the beam to the detector.

Claims 2, 7-9, 15, 18, 22, 24-27, 29, 31, 36-38, 44, 47, 51, 53-56 and 58 are dependent on Claims 1 and 30 are rejected for substantially the same reasons.

For the remainder of this Office Action Examiner is interpreting the claim to read on an optical guide in conjunction with a scattering element other than particles.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-2, 7-9, 15, 18, 22, 24-27, 29-31, 36-38, 44, 47, 51, 53-56 and 58 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for **omitting**



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**essential elements**, such omission amounting to a gap between the elements. See

MPEP § 2172.01. The omitted elements are:

- a. an element that in some way shape or form enables a panel (without an optical guide and scattering particles including at least one detector arranged along said at least one edge) to transmit electromagnetic radiation to said at least one edge, (emphasis added). Specifically, how does a panel without an optical guide or scattering particles direct a beam of electromagnetic radiation to a detector arranged along one edge of the panel?

Examiner notes paragraph [0050] of the specification as filed teaches the electromagnetic radiation is "scattered by the screen." Paragraph [0052] teaches the "screen preferably is made of a relatively transparent material with small but significant scattering properties" (emphasis added). How do the aforementioned screens perform light scatter? Does Applicant consider the subject matter to be well known in the art such that further details were omitted?

Examiner notes an alternative embodiment is also disclosed. Paragraph [0096] teaches "a transparent non-scattering element in contact with a Lambertian surface may be employed." However, the claim does not appear to read on this subject matter because "said panel being operative to transmit electromagnetic radiation from said at least one beam impinging thereon to said at least one edge thereof" claims the panel itself is redirecting the beam to the detector.

Claims 1 and 30 lack the essential claim language.

Claims 2, 7-9, 15, 18, 22, 24-27, 29, 31, 36-38, 44, 47, 51, 53-56 and 58 are dependent on Claims 1 and 30 are rejected for substantially the same reasons.

For the remainder of this Office Action Examiner is interpreting the claim to read on an optical guide in conjunction with a scattering element other than particles.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-2, 7-9, 15, 18, 22, 24-27, 29-31, 36-38, 44, 47, 51, 53-56 and 58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oikawa et al. (U.S. Pat. No.: 4,320,292) in view of Lipman et al. (WO 03/104965).

With respect to Claim 1, Oikawa teaches an interface apparatus comprising:  
a panel defining at least one edge (Figs. 1, 2 and 6-11);  
at least one detector arranged along said at least one edge of said panel (Fig. 1, items 13 and 14 and Figs. 6-7, items 68); and

an electromagnetic radiation beam emitter operative to direct at least one beam of electromagnetic radiation onto said panel from a variable distance and at a variable angle (Figs. 1-3 and 7 and Col. 6, lines 49-51);

said panel being operative to transmit electromagnetic radiation from said at least one beam impinging thereon to said at least one edge thereof, for detection by said at least one detector (Figs. 1, 2 and 6-11 and Col. 3, lines 28-46 teach the light from the input device is scattered and detected at the edges), said panel being operative to attenuate said electromagnetic radiation passing there through to said at least one edge as a function of the distance traveled by the electromagnetic radiation through the panel (Col. 3, line 65. Examiner notes that the light inherently attenuates as a function of time and distance traveled), whereby said at least one detector is operative to provide at least one output (Col. 3, lines 34-52).

However, Oikawa fails to expressly teach an output usable to determine said variable distance and said variable angle (emphasis added).

Lipman teaches a light pen system to receive at least one output and to determine said variable distance and variable angle (p.7, line 23-p.8, line 24). It would have been obvious to one of ordinary skill in the art to modify the detection system of Oikawa to include the stylus and angle detection of Lipman to provide advanced functionality resulting in an intuitive and responsive user interface (Lipman, p. 5, line 10).

Oikawa in view of Lipman teaches an interface apparatus to determine variable distance and angle of an input device. However, Oikawa in view of Lipman fails to

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expressly teach a panel without an optical guide and scattering particles therein (emphasis added).

Examiner takes official notice that Lambertian surfaces are well known in the art. Examiner notes Lambertian surfaces are typically used provide a scattering effect. Oikawa in view of Lipman teaches a device which is different from the claimed interface apparatus by the substitution of the step(s) of a panel without an optical guide and scattering particles therein. Official notice teaches the substituted step(s) of a Lambertian surface and their functions were known in the art to provide a scattering element to reflect and diffuse electromagnetic radiation.

The optical guide and scattering particles of Oikawa in view of Lipman could have been substituted with an optical guide in conjunction with a Lambertian surface as taught by Official notice and the results would have been predictable and resulted in a panel without an optical guide and scattering particles therein with detectors arranged along the edge of said panel. Therefore, the claimed subject matter would have been obvious to a person having ordinary skill in the art at the time the invention was made.

With respect to Claim 2, Oikawa in view of Lipman teaches the interface apparatus according to Claim 1, discussed above, and wherein said panel is selected from a group consisting of: a display, a mobile telephone display panel, a hand- held computing device display panel, a television panel and an input pad panel (Oikawa, Fig. 1, Abstract and Col. 9, lines 17-20).

With respect to Claim 7, Oikawa in view of Lipman teaches the interface apparatus according to Claim 1, discussed above, and wherein said at least one detector comprises a substantially linear array of detectors (Oikawa, Fig. 1).

With respect to Claim 8, Oikawa in view of Lipman teaches the interface apparatus according to Claim 1, discussed above, and wherein said at least one detector is capable of detecting said electromagnetic radiation at predetermined frequencies in at least one of visible and non-visible ranges (Oikawa, Col. 6, lines 49-51 teach the light source is an infrared ray. Examiner notes that a detector designed to detect an infrared ray inherently teaches detection of electromagnetic radiation at a predetermined frequency in non-visible ranges. Examiner further notes that the predetermined frequency in the claim as written is not defined and the group including at least one of visible and non-visible ranges reads on all electromagnetic radiation).

With respect to Claim 9, Oikawa in view of Lipman teaches the interface apparatus according to Claim 1, discussed above, and wherein said electromagnetic radiation beam emitter is operative to provide at least one of a substantially conical beam (Oikawa, Fig. 2 teaches a conical beam and Col. 6, line 53 teaches a conical tip), at least one substantially collimated beam, at least one beam having a substantially asymmetrical cross section, at least one beam having a substantially pyramidal shape and at least one beam having a substantially polygonal cross section.

With respect to Claim 15, Oikawa in view of Lipman teaches the interface apparatus according to Claim 1, discussed above, and wherein said electromagnetic radiation beam emitter is operative to provide at least one of a modulated beam, a beam of visible light and a beam of non-visible electromagnetic radiation (Oikawa, Col. 6, lines 49-51).

With respect to Claim 18, Oikawa in view of Lipman teaches the interface apparatus according to Claim 1, discussed above, and also comprising detector output processing circuitry operative to receive at least one output of said at least one detector and to provide an output indication of at least one of location, orientation, shape and size of at least one impingement spot defined by impingement of said at least one electromagnetic radiation beam on said panel (Oikawa, Col. 3, lines 34-52).

With respect to Claim 22, Oikawa in view of Lipman teaches the interface apparatus according to Claim 1, discussed above, and also comprising detector output processing circuitry operative to receive at least one output of said at least one detector and to provide an output indication of at least one of the location and angular orientation of said electromagnetic radiation beam emitter (Lipman, p.7, line 23-p.8, line 26).

The further limitations of Claims 24-26 are rejected for substantially the same reasons as Claim 22, discussed above.

With respect to Claim 27, Oikawa in view of Lipman teaches the interface apparatus according to Claim 1, discussed above, wherein impingement of said beam on said panel provides a substantially elliptical impingement spot (Oikawa, Fig. 2 and Col. 6, line 53 teach a conical shaped beam. Examiner notes that a conical shaped beam provides a substantially elliptical impingement spot, particularly when the beam is at an angle).

With respect to Claim 29, Oikawa in view of Lipman teaches the interface apparatus according to Claim 1, discussed above and comprising analysis circuitry operative to employ detected variations in intensity of said electromagnetic radiation at different locations on an impingement spot defined by impingement of said beam on said panel, thereby to assist in determination of an angle of intersection between said beam and said panel (Lipman, p.7, line 23-p.8, line 24).

With respect to Claim 30, Oikawa teaches an interface method comprising: providing a panel defining at least one edge (Figs. 1, 2 and 6-11), at least one detector arranged along said at least one edge of said panel (Fig. 1, items 13 and 14 and Figs. 6-7, items 68) and an electromagnetic radiation beam emitter operative to direct at least one beam of electromagnetic radiation onto said panel from a variable distance and at a variable angle (Figs. 1-3 and 7 and Col. 6, lines 49-51);

directing said beam of electromagnetic radiation from said electromagnetic radiation beam emitter onto said panel, thereby producing at least one impingement

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spot (Figs. 1, 2 and 7 and Col. 3, lines 28-46 teach the light from the input device is directed onto the panel producing at least one impingement spot and then scattered and detected at the edges);

employing said panel to transmit electromagnetic radiation from said at least one impingement spot to said at least one edge thereof (Figs. 1, 2 and 6-11 and Col. 3, lines 28-46 teach the light from the input device is scattered and detected at the edges), said panel being operative to attenuate said electromagnetic radiation passing therethrough to said at least one edge as a function of the distance traveled by the electromagnetic radiation through the panel (Col. 3, line 65. Examiner notes that the light inherently attenuates as a function of time and distance traveled);

detecting, by said at least one detector, said electromagnetic radiation transmitted by said panel to said at least one edge (Col. 3, lines 34-52);

However, Oikawa fails to expressly teach employing an output of said at least one detector to determine said variable distance and said variable angle (emphasis added).

Lipman teaches a light pen system to receive at least one output of said at least one detector and to determine said variable distance and variable angle (p.7, line 23- p.8, line 24). It would have been obvious to one of ordinary skill in the art to modify the detection system of Oikawa to include the stylus and angle detection of Lipman to provide advanced functionality resulting in an intuitive and responsive user interface (Lipman, p. 5, line 10).



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Oikawa in view of Lipman teaches an interface method to determine variable distance and angle of an input device. However, Oikawa in view of Lipman fails to expressly teach providing a panel without an optical guide and scattering particles therein (emphasis added).

Examiner takes official notice that Lambertian surfaces are well known in the art. Examiner notes Lambertian surfaces are typically used provide a scattering effect. Oikawa in view of Lipman teaches a method which is different from the claimed interface method by the substitution of the step(s) of providing a panel without an optical guide and scattering particles therein. Official notice teaches the substituted step(s) of a Lambertian surface and their functions were known in the art to provide a scattering element to reflect and diffuse electromagnetic radiation.

The optical guide and scattering particles of Oikawa in view of Lipman could have been substituted with an optical guide in conjunction with a Lambertian surface as taught by Official notice and the results would have been predictable and resulted in providing a panel without an optical guide and scattering particles therein with detectors arranged along the edge of said panel. Therefore, the claimed subject matter would have been obvious to a person having ordinary skill in the art at the time the invention was made.

The further limitations of Claims 31, 36-38, 44, 47, 51, 53-56 and 58 are rejected for substantially the same reasons as Claims 2, 7-9, 15, 18, 22, 24-27 and 29, discussed above.

9. Claims 10, 28, 39 and 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oikawa in view of Lipman and further in view of Applicant admitted prior art (hereinafter referred to as "AAPA").

With respect to Claim 10, Oikawa in view of Lipman teaches the interface apparatus according to Claim 1, discussed above. However, Oikawa in view of Lipman fails to expressly teach wherein said electromagnetic radiation beam emitter is operative to provide a plurality of beams.

AAPA teaches providing a plurality of beams (based on prior official notice). It would have been obvious to one of ordinary skill in the art to modify the light pen of Oikawa in view of Lipman to provide a plurality of beams as taught by AAPA to improve the functionality and versatility of the overall system.

With respect to Claim 28, Oikawa in view of Lipman teaches the interface apparatus according to Claim 27, discussed above, and also comprising analysis circuitry operative to determine the elliptical eccentricity of the light incident on the display and determining an angle of intersection between said beam and said panel (Lipman, p.7, line 23-p.8, line 24). However, Oikawa in view of Lipman fail to expressly teach determining a ratio of a major axis and a minor axis of said elliptical impingement spot.

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AAPA teaches the equivalence of using the major/minor axis of said elliptical impingement and Lipman's calculation of the elliptical eccentricity for their use in determining an angle of intersection (based on prior official notice). Examiner notes that the selection of any of these known equivalents would be within the level of one of ordinary skill in the art.

The further limitations of Claims 39 and 57 are rejected for substantially the same reasons as Claims 10 and 28, discussed above.

### ***Response to Arguments***

10. Applicant's arguments filed June 15, 2010 (hereinafter "Remarks") have been fully considered but they are not persuasive.

#### Optical guide and scatter

On pages 10-11 of the Remarks, Applicant argues "[t]he present invention does not require specialized optical guide channels and/or scattering particles." Examiner disagrees.

As discussed above with regards to the rejections under 35 USC § 112, Examiner notes that the specification as filed does not support a panel with sensors mounted in the edges (i.e., Fig. 2, item 102) without some type of optical guide and scattering element to re-direct the electromagnetic radiation beam from the surface to

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the edges where the detector is located. Examiner is unsure exactly how Applicant's detector is able to receive a signal if the electromagnetic radiation beam is not made to scatter or directed via an optical guide to the at least one detector along said at least one edge of said panel.

In the interest of compact prosecution, Examiner further notes that Applicant appears to be misinterpreting the meaning of an "optical guide." Examiner notes an optical guide is a broad term and encompasses any means by which an optical signal is directed to a specific location, i.e., redirecting a beam of light from a screen to a detector located at the edge of the screen. An optical guide is not tied to a specific structure or device to perform the redirection of light.

#### Importance of Oikawa and scatterer

On pages 10-11 of the Remarks, Applicant argues "Oikawa clearly states that the scatterer (fine powder of silica) embedded in the optical guide channels 'plays an important role' in the invention...so by combining Oikawa with Lipman, the examiner is modifying the Oikawa display to omit the optical guides with scatterer, which is clearly contrary to what the Oikawa device requires" (emphasis added) Examiner is not persuaded.

Examiner notes that Oikawa uses edge detectors to determine the input signal. Without some type of scatter or optical guide there would be no signal to detect. Therefore, it comes as no surprise that some type of scattering element plays an

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important role. However, Examiner disagrees with Applicant's argument that **modification of the scattering element** would render Oikawa unsatisfactory for its intended purpose. To the contrary, Examiner notes Oikawa expressly suggests scattering elements other than fine powder of silica. For example, Col. 5, lines 41-44 teaches the combination of two different plastics to obtain an optical guide with scatter.

Improper combination of Oikawa and Lipman

On pages 11-12 of the Remarks, Applicant argues "[i]f the examiner modifies Lipman to include optical guides and scatterer, then it is unpredictable whether this modified device will function at all." Examiner disagrees.

The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

Nevertheless, in the interest of compact prosecution, Examiner notes the specific manner of sensing light does not appear to be a concern of the Lipman reference. Page 6, lines 20-27 teach "light is sensed by a sensitive layer (not shown) positioned over, or incorporated in, the display...[t]he sensitive layer determines the appropriate X – Y coordinates of the stylus 16 and sends a corresponding position signal." Page 7,

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lines 19-22 further teach the device "must also determine the Z-coordinate...this can be achieved in a number of ways." Examiner maintains his position that one of ordinary skill in the art would understand the X-Y coordinate detection of Oikawa could be combined with the variable angle and distance teachings of Lipman.

11. Applicant's remaining arguments have been fully considered but they are moot in view of the new ground(s) of rejection and/or not persuasive.

### ***Conclusion***

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Xie et al. (U.S. Pub. No.: 2005/0024336) and Yguerabide et al. (U.S. Pub. No.: 2003/0096302) teach scatter and Lambert surfaces. Maekawa et al. (U.S. Pub. No.: 2003/0030003) and Hilsum et al. (U.S. Pat. No.: 3,947,842) teach optical guides to direct an optical signal to a specific location.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANTONIO XAVIER whose telephone number is 571-270-7688. The examiner can normally be reached on M-F 6:30am-12:30pm EST.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amare Mengistu can be reached on 571-272-7674. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/A. X./

Examiner, Art Unit 2629

/Amare Mengistu/  
Supervisory Patent Examiner, Art Unit 2629